AMENDMENTS TO THE CLAIMS:

This listing of claims replaces all prior versions of claims in the application.

1. (Currently amended) Method for operating a dynamic range ~~power~~ control of an audio signal, with an adaptive threshold, wherein said dynamic range control comprises an audio signal input, an audio signal output and a power control comprising:

- receiving at least two thresholds comprising a maximum power level for short time interval operation and a maximum power level for long time operation of an electro acoustic transducer,
- detecting the power of the audio signal input continuously,
- short term controlling the power of the audio signal output wherein the power of the output is reduced to said maximum power level for short time operation, if the detected power of said audio signal input exceeds said maximum power level for short time interval operation, and
- long term controlling the power of the audio signal output wherein the power of the output signal is reduced to said maximum power level for long time operation, if the detected power of said audio signal input is exceeding said maximum power level for long time operation, for a predetermined time period, wherein said long term control overrides said short term control.

2. (Currently amended) Method according to claim 1, wherein a speed of said long term controlling of the power of the signal is performed depending from the difference power between said detected input signal and said maximum power level for long time operation.

3. (Previously presented) Method according to claim 1, wherein said thresholds are received from said electro acoustic transducer.

4. (Previously presented) Method according to claim 1, wherein said long term control comprises a smooth reduction of said output power level.

5. (Previously presented) Method according to claim 1, wherein said long term control comprises a time interval controlled smooth reduction of said output power level.

6. (Previously presented) Method according to claim 1, wherein said short term control comprises an immediate reduction of said output power level.

7. (Previously presented) Method according to claim 1, wherein said power control comprises a digital power control having a digital control range and an analog power control having an analog power control range, wherein said signal volume is controlled analogously at signal levels lower than the control range of said analog control, and ~~in that~~ said signal power is controlled digitally at signal levels higher than the control range of said digital control, and wherein the power control ranges of said analog and digital controls are not overlapping.

8. (Currently amended) ~~Computer program product comprising program code means stored on a~~A computer readable medium encoded with a computer program having instructions for carrying out [[the]]a method of ~~claim 1~~operating a dynamic range control of an audio signal, with an adaptive threshold, wherein said dynamic range control comprises an audio signal input, an audio signal output, and a range control, the method comprising:

receiving at least two thresholds comprising a maximum power level for short time interval operation and a maximum power level for long time operation of an electro acoustic transducer,

detecting the power of the audio signal input continuously,

short term controlling the power of the audio signal output wherein the power of the output is reduced to said maximum power level for short time operation, if the detected power of said audio signal input exceeds said maximum power level for short time interval operation, and long term controlling the power of the audio signal output wherein the power of the output signal is reduced to said maximum power level for long time operation, if the

detected power of said audio signal input is exceeding said maximum power level for long time operation, for a predetermined time period, wherein said long term control overrides said short term control,

when said computer program ~~product~~ is run on an electronic audio device.

9-10. (Canceled)

11. (Previously presented) Dynamic range controller with an adaptive threshold comprising:

an audio signal input,

an audio signal output,

means to continuously detect the power of the audio signal and

a power controller, wherein said dynamic range controller comprises:

means to receive at least two thresholds comprising a maximum power level for short time interval operation and a maximum power level for long time operation of an electro acoustic transducer,

wherein said dynamic range controller is configured to short term control the power of the audio signal output wherein the power of the output is reduced to said maximum power level for short time operation, if the detected power of said audio signal input exceeds said maximum power level for short time interval operation, and

wherein said dynamic range controller is configured to long term control the power of the audio signal output wherein the power of the output signal is reduced to said maximum power level for long time operation, if the detected power of said audio signal input is exceeding said maximum power level for long time operation for a predetermined time period, wherein said long term control overrides said short term control.

12. (Previously presented) Dynamic range control according to claim 11, further comprising a soft switch to slowly control the power of the signal wherein the power of the output signal substantially equals said maximum power level.

13. (Previously presented) Dynamic range control according to claim 11, further comprising a timer element to operate said long term control in a timer controlled way.

14. (Currently amended) Electronic audio device comprising an audio signal source, [[and]] an audio output, and ~~comprising~~ a dynamic range controller with an adaptive threshold, ~~according to claim 11~~said dynamic range controller comprising:

an audio signal input,

an audio signal output,

means to continuously detect the power of the audio signal,

a power controller, and

means to receive at least two thresholds including a maximum power level for short time interval operation and a maximum power level for long time operation of an electro acoustic transducer,

wherein said dynamic range controller is configured to short term control the power of the audio signal output wherein the power of the output is reduced to said maximum power level for short time operation, if the detected power of said audio signal input exceeds said maximum power level for short time interval operation, and wherein said dynamic range controller is configured to long term control the power of the audio signal output wherein the power of the output signal is reduced to said maximum power level for long time operation, if the detected power of said audio signal input is exceeding said maximum power level for long time operation for a predetermined time period, wherein said long term control overrides said short term control.

15. (Previously presented) Electronic audio device according to claim 14, wherein said audio source is a digital audio signal source and said audio output is an analog audio output.

16. (Previously presented) Electronic audio device according to claim 14, wherein the means to receive at least two thresholds comprised in the dynamic range control with an adaptive threshold is implemented by an integrated circuit implemented in a connector of

said electro acoustic transducer.